

CLAIMS

1. A gel processing and transfer device, useful for the processing and transferring of the gels with minimal handling, said device comprising at least 4 separable components namely: a base plate for holding the gels with facility to drain out solution; a retaining rim with attached side-walls, said side walls are fastened to the base plate by a fastening means; at least one "O" ring fixed to the retaining rim to give leakproof arrangement with the base plate; and a lid to cover the assembly.
2. A device as claimed in claim 1, wherein the dimension of the base plate used depends upon the size of the gel to be transferred from the electrophoresis tray to the base plate.
3. A device as claimed in claim 1, wherein the base plate used is made up of materials selected from the group comprising of, polycarbonate, acrylic, plexiglas, glass, plastic, polyethylene, polypropylene, polyester, polymethacrylate, poly(1,4-cyclohexylene dimethylene terephthalate)glycol and metals.
4. A device as claimed in claim 1, wherein the base plate has a thickness of at least 1 mm.
5. A device as claimed in claim 1, wherein one of the ends of the base plate can optionally be shaped in the form of wedge to ease transfer of the gel from the base plate onto the membrane
6. A device as claimed in claim 1, wherein the base plate has a drain-out device to decant the poured solution.
7. A device as claimed in claim 6, wherein the drain-out device has a hole cut in center on one side of the base plate.
8. A device as claimed in claim 6, wherein the hole of the drain-out device has a nozzle attached cut to fit the size of the object of invention.

9. A device as claimed in claim 6, wherein the nozzle on drain-out device, is made up of materials selected from the group comprising of, polycarbonate, acrylic, plexiglas, glass, plastic, polyethylene, polypropylene, polyester, polymethacrylate, poly(1,4-cyclohexylene dimethylene terephthalate)glycol and metals.

10. A device as claimed in claim 6, wherein the nozzle on the drain-out device has a tubing attached to it.

11. A device as claimed in claim 10, wherein the tube is made up of materials selected from the group comprising of, rubber, latex rubber, silicone, platinum-cured silicone (for high purity and no peroxides), C-Flex (an opaque white thermoplastic elastomer formulated from styrene-ethylene-butadiene-styrene block copolymer, low density polyethylene, fluorinated ethylene-propylene, teflon polytetrafluoroethylene and silicone.

12. A device as claimed in claim 10, wherein the tube may be of any convenient length with inner diameter that fits exactly to the open end of the nozzle and fixed with a clamp to control the flow of the solution.

13. A device as claimed in claim 1, wherein the base plate can have any type of the drain out facility to decant the poured solution.

14. A device as claimed in claim 1, wherein the retaining rim has dimension depending upon the size of the gel used.

15. A device as claimed in claim 1, wherein the retaining rim is made up materials selected from the group consisting of, polycarbonate, acrylic, plexiglas, glass, plastic, polyethylene, polypropylene, polyester, polymethacrylate, poly(1,4-cyclohexylene dimethylene terephthalate)glycol and metals.

16. A device as claimed in claim 1, wherein the retaining rim used has a thickness of at least 1 mm.

17. A device as claimed in claim 1, wherein the retaining rim has sidewalls of height of atleast 1 cm.

18. A device as claimed in claim 17, wherein the side-walls of the retaining rim are attached perpendicular to horizontal plates and 2 cm wide from the horizontal plates to ensure that the horizontal plates are always outside the side walls.

19. A device as claimed in claim 17, wherein the sidewalls of the retaining rim are attached with the horizontal plate in a way so that 2 mm of side-walls always protrude below the horizontal plate.

20. A device as claimed in claim 1, wherein the base plate and retaining rim are fastened together by any of the conventional methods.

21. A device as claimed in claim 20, wherein the fastening means are selected from the group comprising of nut and bolts, clamps, bolts with plastic fitted caps and nuts engraved in the base plate.

22. A device as claimed in claim 20, wherein the fastening means is made up of materials selected from the group comprising of acrylic, plexiglas, glass, plastic, polyethylene, polypropylene, polyester, polymethacrylate, poly(1,4-cyclohexylenedimethylene terephthalate) glycol and metals.

23. A device as claimed in claim 1, wherein the retaining rim used has at least one "O" ring to avoid leakage of solution from the assembly of base plate and retaining rim.

24. A device as claimed in claim 23, wherein the O ring is made up of the materials selected from the group comprising of rubber, latex rubber, silicone, platinum-cured silicone (for high purity and no peroxides), C-Flex (an opaque white thermoplastic elastomer formulated from styrene-ethylene-butadiene-styrene block co-

polymer), low density polyethylene, fluorinated ethylene-propylene, teflon polytetrafluoroethylene and silicone.

25. A device as claimed in claim 23, wherein the "O" ring used is fitted around the protruded portion of the sidewalls of the retaining rim.

26. A device as claimed in claim 23, wherein the "O" ring used can optionally be placed inside the groove of the base plate.

27. A device as claimed in claim 1, wherein the lid used depends upon the size of the assembly made by the side-walls of the retaining rim.

28. A device as claimed in claim 27, wherein the lid used is made up of the materials selected from the group comprising of polycarbonate, acrylic, plexiglas, glass, plastic, polyethylene, polypropylene, polyester, polymethacrylate, poly(1,4-cyclohexylene dimethylene terephthalate)glycol and metals.

29. A device as claimed in claim 27, wherein the lid used has a thickness of at least 1 mm.

30. A device as claimed in claim 27, wherein the lid rests on the top of side walls of the retaining rim and can be easily covered and removed.

31. A device as claimed in claim 27, wherein the lid as used has atleast four protrusions attached onto the top, that keep the lid fixed, onto the side walls of the retaining rim from outside and the dimension of which depend upon the height of the side walls of the retaining rim.

32. A device as claimed in claim 27, wherein the protrusions in the lid as used, is selected from the material, from the group consisting of, polycarbonate, acrylic, plexiglas, glass, plastic, polyethylene, polypropylene, polyester, polymethacrylate, poly(1,4-cyclohexylene dimethylene terephthalate)glycol or metal of choice, but is not limited to the said group.

33. A device as claimed in claim 27, wherein the protrusions on the lid, has a thickness of at least 1mm.

34. A device as claimed in claim 1, wherein the various parts are moulded, a better finished and more durable product will be produced.

35. A device as claimed in claim 1, wherein the whole unit or individual components, could be a part of the automation unit leading to robotic-gel-transfer.

36. A device as claimed in claim 1, wherein the said device ensures intact gel during different processes involved after electrophoresis and during transportation.

37. A device as claimed in claim 1, wherein the device constructed with autoclavable material ensures sterile environment to the gel.

38. A device as claimed in claim 1, wherein the device constructed with metal with no heat-sensitive component has uses in food industry particularly will be useful to bake cake, bread and/or the like with no damage to the product.

39. A device as claimed in claim 1, wherein the device is used in giving desired shape to the jelly and/or the like material.

40. A device as claimed in claim 1, wherein the device is transparent to various lights, translucent, opaque, impermeable to light or the like material.

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